<u>Abstract</u>

High-throughput functional screening assays are provided that identify genes and gene products that are associated with the pathogenesis of osteoarthritis (OA) in chondrocytes. In addition, genes and gene products identified by such functional assays are also provided. The genes and gene products provided herein are useful *inter alia* for diagnosing OA in individuals and as drug targets for identifying drugs to treat OA.